

CLAIMS

1. A system for automatically converting checks to ACH debits, comprising:

means for reading a MICR line in a check at a point where said check is

5 presented;

means for making a decision by applying various rules if said check can be converted to an ACH debit;

means for processing said check as a normal check, when said check cannot be converted to said ACH debit; and

10 means for parsing said MICR line for creating said ACH debit by a financial institution that issued said check, when said check can be converted to said ACH debit.

2. A method for automatically converting checks to ACH debits, comprising the

15 steps of:

reading a MICR line in a check at a point where said check is presented;

making a decision by applying various rules if said check can be converted to an ACH debit;

20 processing said check as a normal check, when said check cannot be converted to said ACH debit; and

parsing said MICR line for creating said ACH debit by a financial institution that issued said check, when said check can be converted to said ACH debit.

3. A method on a network for providing check truncation decision processing

25 logic for ACH conversion applications coupled to said network, said method comprising the steps of:

for electronic check representment, after receiving administrative return data and acting as a customer's ACH Originating Depository Financial Institution (ODFI), a financial institution applying check truncation decision processing logic, said logic comprising the steps of:

- 5 converting said received administrative return data into an ACH debit; and
 using said administrative return informational data for updating;

 for point of sale, applying check truncation decision processing logic residing on equipment at a centralized location for determining and sending confirmational information to a cashier either that an check can be converted to an ACH debit or
10 that said check must be deposited;

 applying check truncation decision processing logic for identifying ineligible checks at two points in lockbox processing:

 during mail opening process, identifying and separating non-standard checks, money orders, travelers checks, and the like; and

- 15 at a first pass through data capture equipment control point, for determining and pocketing as deposit ineligible checks.

4. The method of Claim 3, further comprising any of, or any combination of the steps of:

- 20 mail opening equipment using basic Yes/No logic to detect inconsistencies in check sizes and in MICR lines lengths;

 mail opening equipment not looking at R/T numbers or MICR line detail;

- providing software upgrades, developed and maintained by electronic check experts, to customers for outsourcing ineligible checks; wherein processing
25 information programmed into said software is driven by a particular consumer's billing account number, R/T number, and account number from the check.; and

providing logic for parsing routines for obtaining said consumer's billing account number, R/T number, and account number from the check.

5. The method of Claim 3, further comprising the steps of:

5 updating customer software continuously for identifying and converting new exception checks; and

providing automated interfaces that notify and update customer platforms for said identified and converted new exception checks as they appear.

10 6. The method of Claim 3, wherein customer software maintenance takes place on the following three levels:

Institutional Routing/Transit Number;

Routing/Transit Number and Account Number; and

Consumer Billing ID.

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7. The method of Claim 6, wherein said levels are listed from highest level to lowest level.

8. The method of Claim 3, wherein said step of updating further comprises the
20 steps of:

as a customer encounters a return check having an image, reading said return check data, examining said image data, and determining changes needed for representing an ACH transaction successfully; and

storing any changes needed for successfully converting checks going forward.

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9. An apparatus on a network for providing check truncation decision processing logic for ACH conversion applications coupled to said network, said apparatus comprising:

for electronic check representment, after receiving administrative return data

5 and acting as a customer's ACH Originating Depository Financial Institution (ODFI), means for a financial institution applying check truncation decision processing logic, said logic comprising the steps of:

converting said received administrative return data into an ACH debit; and

using said administrative return informational data for updating;

10 for point of sale, means for applying check truncation decision processing logic residing on equipment at a centralized location for determining and sending confirmational information to a cashier either that an check can be converted to an ACH debit or that said check must be deposited; and

means for applying check truncation decision processing logic for identifying

15 ineligible checks at two points in lockbox processing:

during mail opening process, identifying and separating non-standard checks, money orders, travelers checks, and the like; and

at a first pass through data capture equipment control point, for determining and pocketing as deposit ineligible checks.

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10. The apparatus of Claim 9, further comprising any of, or any combination of:

means for mail opening equipment using basic Yes/No logic to detect inconsistencies in check sizes and in MICR lines lengths;

means for mail opening equipment not looking at R/T numbers or MICR line

25 detail;

software upgrades, developed and maintained by electronic check experts, to customers for outsourcing ineligible checks; wherein processing information programmed into said software is driven by a particular consumer's billing account number, R/T number, and account number from the check; and

5 logic for parsing routines for obtaining said consumer's billing account number, R/T number, and account number from the check.

11. The apparatus of Claim 9, further comprising:

 means for updating customer software continuously for identifying and
10 converting new exception checks; and

 automated interfaces that notify and update customer platforms for said identified and converted new exception checks as they appear.

12. The apparatus of Claim 9, wherein customer software maintenance takes
15 place on the following three levels:

 Institutional Routing/Transit Number;

 Routing/Transit Number and Account Number; and

 Consumer Billing ID.

20 13. The apparatus of Claim 12, wherein said levels are listed from highest level to lowest level.

14. The apparatus of Claim 9, wherein said means for updating further comprises:

 as a customer encounters a return check having an image, means for reading
25 said return check data, examining said image data, and determining changes needed for representing an ACH transaction successfully; and

means for storing any changes needed for successfully converting checks going forward.

15. An apparatus for remittance processing with express check conversion, said apparatus comprising:

means for a consumer receiving an invoice and a conversion;

means for said consumer mailing a payment coupon with a corresponding check to a remittance processing center;

a repository for receiving and processing said payment coupon and said corresponding check;

means for sending said received and processed payment coupon and said corresponding check to a remittance processing center, said remittance processing center further comprising:

means for converting eligible consumer checks;

means for creating an electronic file for said converted checks;

means for depositing ineligible checks at a bank; and

means for managing storage and retrieval of images corresponding to said converted checks; and

an associated financial institution further comprising:

means for ACH file processing and settlement;

means for performing account maintenance;

means for handling administrative returns; and

means for providing customer service.

16. The apparatus of Claim 15, wherein said repository is a company or a lockbox.

17. The apparatus of Claim 15, wherein ineligible checks are deposited at a second financial institution different from said associated financial institution.

5 18. The apparatus of Claim 15, further comprising:
a third party site for opening mail and processing checks.

19. The apparatus of Claim 15, said remittance processing center further comprising:

10 means for opening envelopes;
means for imaging check;
means for determining payment amount;
means for associating said check with a customer account; and
means for determining if said check is eligible for conversion.

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20. The apparatus of Claim 15, wherein eligible checks comprise:
consumer checks only;
checks having a pre-printed serial number;
checks completed and signed by a consumer; and
20 checks of any dollar value.

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21. The apparatus of Claim 15, wherein ineligible checks comprise:
corporate checks;
third party checks;
25 credit card checks;
cashier's checks and money orders;

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government checks;
checks payable in a foreign currency; and
checks containing an auxiliary on-us field.

5 22. The apparatus of Claim 15, wherein said remittance processing center further comprises:

means for sorting checks using a sorting criteria, said sorting criteria further comprising:

10 by a customer database of either a business customer or an opt out customer;

by size of check, wherein six inches denotes a consumer check and a larger size denotes a business check;

by routing transit number on checks and whether said checks are ACH accepted or not; and

15 by format of MICR line and existence of auxiliary on-us field.

23. The apparatus of Claim 22, further comprising:

means for parsing said MICR line; and

options for parsing, said options comprising:

20 using a provided Decisioning Table to make decisions, parse within a customer's remittance processing environment, and create a NACHA formatted file;

decisioning within a customer's remittance processing environment and creating a "Perfect Parsing" data file and transmitting to a corresponding financial institution facility for parsing via a Decisioning Table; and

25 using a third party software Decisioning Table.

24. The apparatus of Claim 23, wherein said Decisioning Table comprises:
a database of bank R/T numbers and account number and MICR parsing
formats;

~~any or all of daily, weekly, and monthly analysis of said financial institution's~~

5 ACH origination, return, and Notifications of Change (NOC) transaction data,
wherein said analyses comprise means for finding patterns; and

means for automatically loading NOCs and using NOC data to correct future
originated transactions.

10 25. The apparatus of Claim 23, further comprising:

options for using said Decisioning Table, said options comprising:

installing a financial institution facility's database in a customer's platform
and using said database to determine eligible and ineligible items, then sending a
resulting data file to said financial institution's facility, said facility then parsing said
15 data and creating and processing a NACHA formatted file containing customer
transactions;

installing a financial institution facility's database in a customer's platform
and using it to determine eligible and ineligible item data, then parsing said data and
creating and processing a NACHA formatted file containing customer transactions.

20 and sending a resulting NACHA formatted file to said financial institution facility,
which then performs enhanced modifications and corrections, comprising, but not
limited to adding and deleting leading zeros and performing credit union conversion
modifications; and

using third party software for converting items and sending a resulting

25 NACHA formatted file to a financial institution's facility for further processing.

26. The apparatus of Claim 25, wherein said means for installing said database in said customer's platform further comprises:

means for incorporating said database into a software program of said customer for assisting in determining which checks are eligible for conversion; and

5 means for updating said database periodically from a transmitted file sent from said financial institution to said customer.

27. The apparatus of Claim 15, further comprising:

10 means for destroying checks, which have been converted to ACH debits, within a predetermined amount of time.

28. The apparatus of Claim 23, further comprising:

15 means for identifying active versus retired R/T numbers, ACH participating R/T numbers, credit union conversion identification and translation information, check conversion eligibility flags, invalid account lengths, minimum and maximum account lengths, parsing format codes, and trim lead zero indicator;

20 a MICR Translation Table containing a list of masks for all of the possible MICR on-us field variations with a corresponding location of an account number and check serial number, wherein some masks are duplicated on said table with parsing format identifiers matching options available on a bank directory; and

means for storing all originated check conversion transactions and corresponding transaction modifications needed for future transactions, wherein said transaction modifications are a result of received notifications of change and administration return processing.

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29. The apparatus of Claim 15, further comprising:

means for encoding ineligible checks.

30. The apparatus of Claim 15, further comprising:

~~means for automatically drafting checks as needed for collecting checks from~~

5 R/T numbers that have changed their ACH participation status after an ineligible R/T numbers list was previously loaded.

31. The apparatus of Claim 15, wherein said means for handling administrative returns further comprises:

10 means for correcting and re-originating an ACH item;

means for correcting and drafting a check;

means for dishonoring said an ACH return; and

means for taking a copy of an image of a returned item for producing an image replacement document.

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32. The apparatus of Claim 15, further comprising:

means for using information from a notification of change (NOC) received for check conversion transactions for modifying a (R/T)/Account/Transaction code for future check conversion transactions, further comprising:

20 means for applying check conversion logic for modifying a (R/T)/Account/Check number; and

means for checking if a matching NOC was received in an associated database, and if a match is found, then using NOC information for setting the R/T, Account, and Transaction code.

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33. The apparatus of Claim 32, wherein transactions from said database are removed if a check conversion transaction for a matching RT/Account was not received in a predetermined amount of time.

5 34. The apparatus of Claim 32, further comprising:

means for allowing inquiries, updates, deletes, and adds to the NOC records in said database for, but not limited to, altering how the RT/Account/Transaction code is changed for check conversion transactions.

10 35. The apparatus of Claim 32, further comprising:

means for checking if returns are received for a transaction in which a RT/Account/Transaction code is modified because of a previous NOC, such NOC record is deleted from an associated database such that future transactions for such RT/Account/Transaction code are not altered.

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36. A method for remittance processing with express check conversion, said method comprising the steps of:

a consumer receiving an invoice and a conversion;

20 said consumer mailing a payment coupon with a corresponding check to a remittance processing center;

providing a repository for receiving and processing said payment coupon and said corresponding check;

25 sending said received and processed payment coupon and said corresponding check to a remittance processing center, said remittance processing center further comprising:

converting eligible consumer checks;

creating an electronic file for said converted checks;
depositing ineligible checks at a bank; and
managing storage and retrieval of images corresponding to said converted
checks; and

- 5 providing an associated financial institution further comprising:
means for ACH file processing and settlement;
means for performing account maintenance;
means for handling administrative returns; and
means for providing customer service.

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37. The method of Claim 36, wherein said repository is a company or a lockbox.

38. The method of Claim 36, wherein ineligible checks are deposited at a second
financial institution different from said associated financial institution.

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39. The method of Claim 36, further comprising the step of:
providing a third party site for opening mail and processing checks.

40. The method of Claim 36, said remittance processing center further comprising

20 the steps of:

- opening envelopes;
imaging check;
determining payment amount;
associating said check with a customer account; and
25 determining if said check is eligible for conversion.

41. The method of Claim 36, wherein eligible checks comprise:

consumer checks only;

checks having a pre-printed serial number;

checks completed and signed by a consumer; and

checks of any dollar value.

42. The method of Claim 36, wherein ineligible checks comprise:

corporate checks;

third party checks;

credit card checks;

cashier's checks and money orders;

government checks;

checks payable in a foreign currency; and

checks containing an auxiliary on-us field.

43. The method of Claim 36, wherein said remittance processing center further comprises the steps of:

sorting checks using a sorting criteria, said sorting criteria further comprising:

by a customer database of either a business customer or an opt out

customer;

by size of check, wherein six inches denotes a consumer check and a larger size denotes a business check;

by routing transit number on checks and whether said checks are ACH accepted or not; and

by format of MICR line and existence of auxiliary on-us field.

44. The method of Claim 43, further comprising the steps of:

parsing said MICR line; and

providing options for parsing, said options comprising:

using a provided Decisioning Table to make decisions; parse within a

5 customer's remittance processing environment, and create a NACHA formatted file;

decisioning within a customer's remittance processing environment and

creating a "Perfect Parsing" data file and transmitting to a corresponding financial institution facility for parsing via a Decisioning Table; and

using a third party software Decisioning Table.

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45. The method of Claim 44, wherein said Decisioning Table comprises:

a database of bank R/T numbers and account number and MICR parsing formats;

any or all of daily, weekly, and monthly analysis of said financial institution's

15 ACH origination, return, and Notifications of Change (NOC) transaction data, wherein said analyses comprise means for finding patterns; and

means for automatically loading NOCs and using NOC data to correct future originated transactions.

20 46. The method of Claim 44, further comprising the step of:

providing options for using said Decisioning Table, said options comprising:

installing a financial institution facility's database in a customer's platform

and using said database to determine eligible and ineligible items, then sending a

resulting data file to said financial institution's facility, said facility then parsing said

25 data and creating and processing a NACHA formatted file containing customer transactions;

installing a financial institution facility's database in a customer's platform and using it to determine eligible and ineligible item data, then parsing said data and creating and processing a NACHA formatted file containing customer transactions and sending a resulting NACHA formatted file to said financial institution facility, which then performs enhanced modifications and corrections, comprising, but not limited to adding and deleting leading zeros and performing credit union conversion modifications; and

using third party software for converting items and sending a resulting NACHA formatted file to a financial institution's facility for further processing.

10 47. The method of Claim 46, wherein said installing said database in said customer's platform further comprises the steps of:

incorporating said database into a software program of said customer for assisting in determining which checks are eligible for conversion; and

15 updating said database periodically from a transmitted file sent from said financial institution to said customer.

48. The method of Claim 36, further comprising the step of:

20 destroying checks, which have been converted to ACH debits, within a predetermined amount of time.

49. The method of Claim 44, further comprising the steps of:

25 identifying active versus retired R/T numbers, ACH participating R/T numbers, credit union conversion identification and translation information, check conversion eligibility flags, invalid account lengths, minimum and maximum account lengths, parsing format codes, and trim lead zero indicator;

providing a MICR Translation Table containing a list of masks for all of the possible MICR on-us field variations with a corresponding location of an account number and check serial number, wherein some masks are duplicated on said table with parsing-format-identifiers matching options available on a bank directory; and

5 storing all originated check conversion transactions and corresponding transaction modifications needed for future transactions, wherein said transaction modifications are a result of received notifications of change and administration return processing.

10 50. The method of Claim 36, further comprising the step of:
encoding ineligible checks.

51. The method of Claim 36, further comprising the step of:
automatically drafting checks as needed for collecting checks from R/T
15 numbers that have changed their ACH participation status after an ineligible R/T numbers list was previously loaded.

52. The method of Claim 36, wherein said handling administrative returns further comprises the steps of:
20 correcting and re-originating an ACH item;
correcting and drafting a check;
dishonoring said an ACH return; and
taking a copy of an image of a returned item for producing an image
replacement document.

25 53. The method of Claim 36, further comprising the step of:

using information from a notification of change (NOC) received for check conversion transactions for modifying a (R/T)/Account/Transaction code for future check conversion transactions, further comprising the steps of:

5 ~~applying check conversion logic for modifying a (R/T)/Account/Check~~
number; and

checking if a matching NOC was received in an associated database, and if a match is found, then using NOC information for setting the R/T, Account, and Transaction code.

10 54. The method of Claim 53, wherein transactions from said database are removed if a check conversion transaction for a matching RT/Account was not received in a predetermined amount of time.

15 55. The method of Claim 53, further comprising the step of:
allowing inquiries, updates, deletes, and adds to the NOC records in said database for, but not limited to, altering how the RT/Account/Transaction code is changed for check conversion transactions.

20 56. The method of Claim 53, further comprising the step of:
checking if returns are received for a transaction in which a RT/Account/Transaction code is modified because of a previous NOC, such NOC record is deleted from an associated database such that future transactions for such RT/Account/Transaction code are not altered.